MIRAMICHI ADVANCE, CHATHAM, NEW BRUNSWICK, NOVEMBER 7, 1878.

ROUND THE MOON.

CHAPTER XI.

LUNAR LANDSCAPES.

At half-past two in the morning, the projectile was over the thirteenth lunar parallel and at the effective distance of 500 miles, reduced by the glasses to five. It still seemed impossible, however, that it could ever touch any part of the disc. Its motive speed, comparatively so moderate, was inexplicable to President Barbicane. At that distance from the moon it must have been considerable, to enable it to bear up against her attraction. Here was a phenomenon the cause of which escaped them again. Besides, time failed them to investigate

them. the cause. All lunar relief was defiling under the eyes of the travelers, and they would not lose a single detail.

Under the glasses the disc appeared at the distance of five miles. What would an aeronaut. borne to this distance from the earth, distinguished on

-nothing more.

its surface ? We cannot say, since the greatest ascension has not been more than 25,000 feet.

Michel Ardan was watching near the president, when he noticed long white lines, vividly lighted up by the direct rays of the sun. It was a succession of luminous furrows, very different from the radiation of Copernicus not long before ; they ran parallel with each other. Michel, with his usual readiness.

hastened to exclaim,-"Look there ! cultivated fields !" "Cultivated fields !" replied Nicholl

shrugging his shoulders. "Ploughed, at all event," retorted

Michel Ardan; "but what laborers those Selenites must be, and what giant oxen they must harness to their plough to cut such furrows !"

"They are not furrows," said Barbi cane ; "they are rifts."

the Sea of Rains was at length passed. years, by reason of the succession of The mounts of Condamine and Fonte- equinoxes, will resign their part of ponelle remained-one on the right, the lar stars, the one to Canopus in the other on the left. That part of the disc southern hemisphere, the other to Wega beginning with 60° was becoming quite in the northern. Imagination loses it

mountainous. The glasses brought self in this sublime Infinity, amidst them to within two miles, less than which the projectile was gravitating, that separating the summit of Mont like a new star created by the hand of Blanc from the level of the sea. The man. From a natural cause, these conwhole region was bristling with spikes stellations shone with a soft lustre ; and circles. Towards the 60° Philolaus they did not twinkle, for there was no stood predominant at a height of 5,550 | atmosphere which, by the intervention feet with its elliptical crater, and seen of its layers unequally dense and of diffrom this distance, the disc showed a erent degrees of humidity, produces very fantastical appearance. Landsthis scintillation. These stars were capes were presented to the eye under soft eyes, looking out into the dark very different conditions from those on night, amidst the silence of absolute the earth, and also very inferior to space.

Long did the travelers stand mute,

The moon having no atmosphere watching the constellated firmament, the consequences arising from the abupon which the moon. like a vast sence of this gaseous envelope have alscreen, made an enormous black hole. ready been shown. No twilight on her But at length a painful sensation drew surface; night following day and day them from their watchings. This was following night with the suddenness an intense cold, which soon covered the of a lamp which is extinguished or inside of the glass of the scuttles with a lighted amid profound darkness,-no thick coating of ice. The sun was no transition from cold to heat, the temonger warming the projectile with its

perature falling in an instant from boildirect rays, and thus it was losing the ing point to the cold of space. heat stored up in its walls by degrees. Another consequence of this want This heat was rapidly evaporating into air is that absolute darkness reigns space by radiation, and a considerably where the sun's rays do not penetrate. lower temperature was the result. The That which on earth is called difusion humidity of the interior was changed of light, that luminous matter which into ice upon contact with the glass, the air holds in suspension, which crepreventing all observation.

ates the twilight and the daybreak, Nicholl consulted the thermometer which produces the umbræ and the and saw that it had fallen to seventeen penumbræ, and all the magic of chiarodegrees (centigrade) below zero. So oscuro, does not exist on the moon. that, in spite of the many reasons for Hence the harshness of contrast, which economizing, Barbicane, after having only admit of two colors, black and begged light from the gas, was also white. If a Selenite were to shade his obliged to beg for heat. The projeceyes from the sun's rays, the sky would | tile's low temperature was no 'onger enseem absolutely black, and the stars durable. Its tenants would have been would shine to him as on the darkest | frozen to death.

night. Judge of the impression pro-"Well !" observed Michel, "we can-



"Rifts ? stuff !" replied Michel mild

ly ; "but what do you mean by 'rifts in the scientific world ?"

Barbicane immediately enlightened his companion as to what he knew about lunar rifts. He knew that they were a kind of furrow found on every part of the disc which was not mountainous ; that these furrows, generally isolated, measured from 400 to 500 leagues in length; that their breadth varied from 1,000 to 1,500 yards and that their borders were strictly parallel but he knew nothing more either of

their formation or their nature. Barbicane, through his glasses, oh served these rifts with great attention. He noticed that their borders were form. ed of steep declivities ; they were long parallel ramparts, and with some small amount of imagination he might have admitted the existence of long lines of fortifications, raised by Selenite engineers. Of these different rifts some were perfectly straight, as if cut by a line; others were slightly curved, though still keeping their borders parallel; some crossed each other, some cut through craters ; here they wound through ordinary cavities, such as Posidonius or Petavius ; there they wound through the seas, such as the Sea of Serenity.

What origin do they attribute to these rifts ? That is a question difficult to solve. They are certainly anterior to the formation of craters and circles, for several have introduced themselves by breaking through their circular ramparts. Thus it may be that, contemporary with the latter geological epochs, they are due to the expansion of natural forces.

But the projectile had now attained the 40° of lunar lat., at a distance not exceeding 400 miles. Through the glasses objects appeared to be only four miles distant.

At this point, under their feet, rose Mount Helicon, 1,520 feet high, and around about the left rose moderate elevations, enclosing a small portion of the "Sea of Rains," under the name of the Gulf of Iris. The terrestrial atmosphere would have to be one hun-

duced on Barbicane and his three friends not reasonably complain of the monoby this strange scene ! Their eyes | tony of our journey ! What variety we were confused. They could no longer have had, at least in temperature grasp the respective distances of the Now we are blinded with light and different plains. A lunar landscape saturated with heat, like the Indians of without the softening of the phenomena | the Pampas! now plunged into proof chiaro-oscuro could not be rendered found darkness, amidst the cold like by an earthly landscape painter : it the Esquimaux of the the north pole. would be spots of ink on a white page No, indeed ! we have no right to com-

plain ; nature does wonders in our This aspect was not altered even honor.' when the projectile, at the height of 80°, "But," asked Nicholl, " what is the was only separated from the moon by a emperature outside ? "

> "Exactly that of the planetary space," replied Barbicane.

at less than twenty-five miles from the "Then," continued Michel Ardan, mountain of Gioja, a distance reduced 'would not this be the time to make by the glasses to a quarter of a mile. the experiment which we dared not at-It seemed as if the moon might be tempt, when we were drowned in the touched by the hand. It seemed imsun's rays?"

possible that, before long the projectile " It is now or never," replied Barbiwould not strike her, if only at the cane, " for we are in a good position to north pole, the brilliant arch of which verify the temperature of space, and see was so distinctly visible on the black if Fourier or Pouillet's calculations are

exact.' Michel Ardan wanted to open one of "In any case it is cold," said Michel. the scuttles and throw himself on the See ! the steam of the interior is conmoon's surface. A very useless attempt : densing on the glasses of the scuttles. for if the projectile could not attain any If the fall continues, the vapor of our point whatever of the satelite, Michael, breath will fall in snow around us." carried along by its motion, could not "Let us prepare a thermometer," attain it either. said Barbicane.

distance of fifty-five miles ; nor even

when, at five in the morning, it passed

At that moment, at six o'clock the lun-We may imagine that an ordinary ar poll appeared. The disc only prethermometer would afford no result sented to the traveler's gaze one half under the circumstances in which this brilliantly lit up, whilst the other disinstrument was to be exposed. The appeared in the darkness. Suddenly mercury would have been frozen in its the projectile passed the line of demarball, as below forty-two degrees below, cation between intense light and abit is no longer liquid. But Barbicane solute darkness, and was plunged into had furnished himself with a spirit

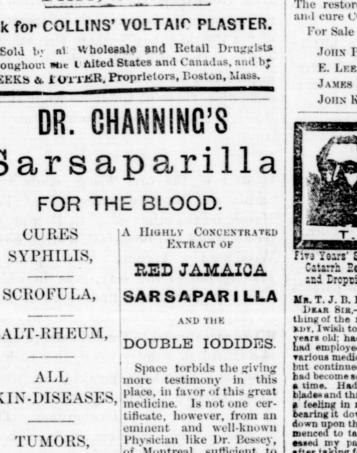
profound night. thermometer on Wafferdin's system, The transition was so sudden, withwhich gives the minima of excessively out shade, without gradation of light, low temperatures. without attenuation of the luminous Before beginning the experiment, waves, that the orb seemed to have this instrument was compared with an been extinguished by a powerful blow. ordinary one, and then Barbicane pre-In the interior, the obscurity was pared to use it. complete. They could not see each "How shall we set about it ?" asked

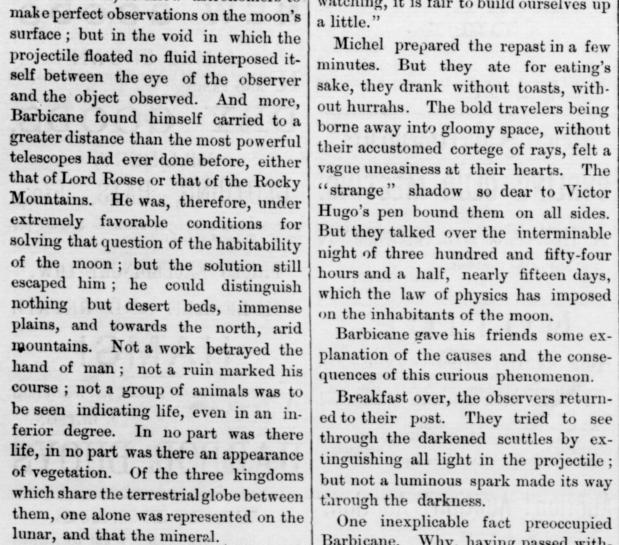
other. Hence the necessity of dispell-Nicholl ing the darkness. However desirous "Nothing is easier," replied Michel Barbicane might be to husband the gas, Ardan, who was never at a loss. "We the reserve of which was small, he was open the scuttle rapidly ; throw out the obliged to ask from it a fictitious light, instrument; it follows the projectile an expensive brilliancy which the sun with exemplary docility ; and a quarter then refused. of an hour after, draw it in."

"Well," said Michel Ardan, let us "With the hand ?" asked Barbicane. dred and seventy times more transpa- have breakfast. After a whole night of "With the hand," replied Michel. rent than it is, to allow astronomers to watching, it is fair to build ourselves up



vous Affections Local Rheumatism, Tic Douloureux, Nervous Pain, Affections of the Kidneys, Fractured Ribs, Affections of the Chest, Colds and Coughs, Injuries of the Back. Strains and Bruises. Weak Back, Nervous Pain of the Bowels, Cramp in the Stomach and Limbs, Heart Affections, Enlarged Spleen, Bruises and Punctures, Rheumatism of the Wrists and Arms, Asthma, Gout, Local and Deepscated Pains, Pain in the Chest, Stitch in the Back, Pain in the Hip, Varicose or Enlarged Veins, Crick in the Back and Neck, Pain and Weakness in Side and Back, Hoarseness, Sore Throat, Lumbago, Whooping Cough, Sharp Pains in the Breast, Heart Disease, Quinsy, Diabeter, and for Lameness in any part of the Body.





Towards four in the morning, at the in such a short distance of the moonheight of the fiftieth parallel, the disously shaped, lying in the full light. To the right, on the contrary, lay a unfathomable and gloomly, drilled into moon's attraction could not be explain- white bear." the lunar soil

conveniently studied from the earth, between the last quarter and the new moon, when the shadows fall from west it going ? Was it going farther from, to east.

This black color is rarely met with borne in that profound darkness through on the surface of the satellite. As yet the infinity of space? How could they it has only been recognized in the learn, how calculate, in the middle of depths of the circle of Endymion, to this night ? All these questions made the east of the Cold Sea, in the northern Barbicane uneasy, but he could not hemisphere, and at the bottom of solve them.

Grimaldi's circle, on the equator, towards the eastern border of the orb. jectile be? Who could sav? Where Pluto is an annular mountain, situ- would the chances of conflicting attrac-

ated in 51° north latitude and 9 east | tion have drawn it to? The disappointlongitude. Its circuit is forty-seven ment of the travelers in the midst of of sun have poured into her. miles long and thirty-two broad. this utter darkness may be imagined.

Barbicane regretted that they were All observation of the lunar disc was not passing directly above this opening. impossible. The constellations alone There was an abyss to fathom, perhaps | claimed all their attention.

"Well then, my friend, do not expose yourself," answered Barbicane. Michel prepared the repast in a few " for the hand that you draw in again minutes. But they ate for eating's will be nothing but a stump frozen and

out hurrahs. The bold travelers being " Really !" borne away into gloomy space, without "You will feel as if you had had a their accustomed cortege of rays, felt a terrible burn, like that of iron at a vague uneasiness at their hearts. The white heat; for whether the heat "strange" shadow so dear to Victor leaves our bodies briskly or enters Hugo's pen bound them on all sides. briskly, it is exactly the same thing. But they talked over the interminable Besides, I am not at all certain that the night of three hundred and fifty-four objects we have thrown out are still hours and a half, nearly fifteen days, following us."

deformed by the frightful cold."

"Why not ?" asked Nicholl. "Because, if we are passing through

an atmosphere of the slightest density, these objects will be retarded. Again the darkness prevents our seeing if Breakfast over, the observers return- they still float around us. But in order not to expose ourselves to the loss of our thermometer, we will fasten it and can then more easily pull it back but not a luminous spark made its way again,

Barbicane's advice was followed. One inexplicable fact preoccupied Through the scuttle rapidly opened, Barbicane. Why, having passed with- Nicholl threw out the instrument which was held by a short cord, so that it about twenty-five miles only - the might be more easily drawn up. The tance was reduced to 300 miles. To projectile had not fallen? If its speed scuttle had not been opened more than the left ran a line of mountains caprici- had been enormous, he could have un- a second, but that second had sufficed derstood that the fall would not have to let in a most intense cold.

taken place; but, with a relatively "The devil !" exclaimed Michel black hollow, resembling a vast well, moderate speed, that resistence to the Ardan, "it is cold enough to freeze a

ed. Was the projectile under some Barbicane waited until half an hour This hole was the "Black Lake;" it foreign influence? Did some kind of had elapsed, which was more than was Pluto, a deep circle which can be body retain it in the ether? It was time enough to allow the instrument quite evident that it could never reach to fall to the level of the surrounding any point of the moon. Whither was temperature. Then it was rapidly pulled in

or nearing, the disc? Was it being Barbicane calculated the quantity of spirits of wine overflowed into the little phial soldered to the lower part of the instrument, and said, --

> "A hundred and forty degree centigrade (218° Fahr.) below zero !"

M. Pouillet was right and Fourier In fifteen days where would the prowrong. That was the undoubted temperature of the stary space. Such is, perhaps, that of the lunar continents, when the orb of night has lost by radiation all the heat which fifteen days



some mysterious phenomenon to sur- Indeed, nothing could equal the prise; but the projectile's course could splendor of this starry world, bathed in 180 H^{F-BELS. No. 1 SHAD} not be altered. They must rigidly sub- limpid ether. Its diamonds set in the 40 qtls. bright dry CODFISH mit. They could not guide a balloon, heavenly vault sparkled magnificently. " POLLOCK 600 boxes SCALED HERRING still less a projectile, when once en- The eye took in the firmament from the 200 " No. 1 do. For Sale low by closed within its walls. Towards five Southern Cross to the North Star, HARDING & HATHEWAY, in the morning the northern limits of those two constellations which in 12,000

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